

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 47

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte OSAMU YOKOMIZO, YUICHIRO YOSHIMOTO, YOSHIYUKI KATAOKA,  
SHINICHI KASHIWAI, YASUHIRO MASUHARA, AKIO TOMIYAMA, AKIHITO  
ORII, KOTARO INOUE, TAKAAKI MOCHIDA, and TATSUO HAYASHI

---

Appeal No. 1996-3167  
Application No. 07/974,834<sup>1</sup>

---

HEARD: January 13, 2000

---

Before FRANKFORT, McQUADE, and NASE, Administrative Patent  
Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52. Claims 3, 5, 8, 9, 12, 15 to 22, 32, 33 and 36 to 38 have been withdrawn from consideration under 37 CFR §

---

<sup>1</sup> Application for patent filed November 16, 1992 (Attorney Docket No. 501.25507CC2).

Appeal No. 1996-3167  
Application No. 07/974,834

1.142(b) as being drawn to a nonelected invention. Claims 1,  
2, 10, 11, 23 to 25, 27, 39 and 40 have been canceled.

We REVERSE.

BACKGROUND

The appellants' invention relates to a fuel assembly, and more particularly to a fuel assembly which can be used in a boiling-water reactor to save the consumption of nuclear fuel substances (specification, p. 1). A copy of the claims under appeal appears in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

**United States Patents**

Roberts 1968	3,380,649	Apr. 30,
Kumpf 1970	3,528,885	Sep. 15,
Townsend 1971	3,621,926	Nov. 23,
Takeda et al. 1980 (Takeda)	4,229,258	Oct. 21,
Mochida et al. 6, 1986 (Mochida)	4,587,090	May
Patterson et al. 1987 (Patterson)	4,708,846	Nov. 24,

**Japan Patent Documents**

43-26675	Nov. 15, 1968
52-50498	Apr. 22, 1977
55-22118	Feb. 16, 1980

1984	59-220686	Dec. 12,
	59-52999	Dec. 22, 1984

Claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellants regard as the invention.

Claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 stand rejected under 35 U.S.C. § 112, first paragraph, as the specification, as originally filed, does not provide support for the invention as is now claimed.

Claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 stand rejected under 35 U.S.C. § 103 as being unpatentable over Patterson in view of Kumpf.

Claims 4 and 52 stand rejected under 35 U.S.C. § 103 as being unpatentable over Patterson in view of Kumpf as applied

to claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 above, and further in view of either Japan 52-50498 or Japan 59-52999.

Claims 13 and 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Patterson in view of Kumpf as applied to claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 above, and further in view of any of Mochida, Takeda, Japan 43-26675 or Japan 55-22118.

Claim 13 stands rejected under 35 U.S.C. § 103 as being unpatentable over Patterson in view of Kumpf and any of Mochida, Takeda, Japan 43-26675 or Japan 55-22118 as applied to claims 13 and 14 above, and further in view of either Japan 52-50498 or Japan 59-52999.

Claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 stand rejected under 35 U.S.C. § 103 as being unpatentable over Patterson in view of Kumpf as applied to claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 above, and further in view of Japan 59-220686 and either Roberts or Townsend.

Claims 4 and 52 stand rejected under 35 U.S.C. § 103 as being unpatentable over Patterson in view of Kumpf and either Japan 52-50498 or Japan 59-52999 as applied to claims 4 and 52 above, and further in view of Japan 59-220686 and either Roberts or Townsend.

Claims 13 and 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Patterson in view of Kumpf and any of Mochida, Takeda, Japan 43-26675 or Japan 55-22118 as applied to claims 13 and 14 above, and further in view of Japan 59-220686 and either Roberts or Townsend.

Claim 13 stands rejected under 35 U.S.C. § 103 as being unpatentable over Patterson in view of Kumpf and any of Mochida, Takeda, Japan 43-26675 or Japan 55-22118, in view of either Japan 52-50498 or Japan 59-52999 as applied to claim 13 above, and further in view of Japan 59-220686 and either Roberts or Townsend.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted

rejections, we make reference to the final rejection (Paper No. 28, mailed March 21, 1994) and the answer (Paper No. 41, mailed October 11, 1995) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 40, filed June 16, 1995) and reply brief (Paper No. 43, filed December 11, 1995) for the appellants' arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

#### **The indefiniteness rejection**

We will not sustain the rejection of claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 under 35 U.S.C. § 112, second paragraph.

The second paragraph of 35 U.S.C. § 112 requires claims to set out and circumscribe a particular area with a reasonable degree of precision and particularity. In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977). In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Id.

The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph, is whether the claims meet the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. Some latitude in the manner of expression and the aptness of terms is permitted even though the claim language is not as precise as the examiner might desire. If the scope of the invention sought to be patented can be determined from the language of the claims with a reasonable degree of certainty,



a rejection of the claims under 35 U.S.C. § 112, second paragraph, is inappropriate.

Furthermore, the appellants may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the Court in In re Swinehart, 439 F.2d 210, 160 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought.

With this as background, we have reviewed both (1) the specific rejection under 35 U.S.C. § 112, second paragraph, made by the examiner of the claims on appeal (answer, pp. 11-13) and (2) the appellants' argument against this rejection (brief, pp. 21-22). From this review, we reach the conclusion that the claims under appeal are definite, as required by the second paragraph of 35 U.S.C. § 112, since they define the metes and bounds of the claimed invention with a reasonable degree of precision and particularity for the reasons set

forth by the appellants. In addition, we note that the mere breadth of features or elements recited in a claim does not in and of itself make a claim indefinite.<sup>2</sup>

For the reasons set forth above, the decision of the examiner to reject claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 under 35 U.S.C. § 112, second paragraph, is reversed.

#### **The written description rejection**

We will not sustain the rejection of claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 under 35 U.S.C. § 112, first paragraph.

The written description requirement serves "to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him; how the specification accomplishes this is not

---

<sup>2</sup> Breadth of a claim is not to be equated with indefiniteness. See In re Miller, 441 F.2d 689, 169 USPQ 597 (CCPA 1971).

material." In re Wertheim, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). In order to meet the written description requirement, the appellants do not have to utilize any particular form of disclosure to describe the subject matter claimed, but "the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." In re Gosteli, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Put another way, "the applicant must . . . convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention." Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). Finally, "[p]recisely how close the original description must come to comply with the description requirement of section 112 must be determined on a case-by-case basis." Eiselstein v. Frank, 52 F.3d 1035, 1039, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995) (quoting Vas-Cath, 935 F.2d at 1561, 19 USPQ2d at 1116).

With this as background, we have reviewed both (1) the specific rejection under 35 U.S.C. § 112, first paragraph,

made by the examiner of the claims on appeal (answer, pp. 3-11) and (2) the appellants' argument against this rejection (brief, pp. 14-21, and reply brief, pp. 1-6). From this review, we are convinced that the claims under appeal meet the written description of the first paragraph of 35 U.S.C. § 112, since the original disclosure establishes that the inventors had possession, as of the filing date of the application relied on, of the specific subject matter set forth in the claims under appeal for the reasons set forth by the appellants.

For the reasons set forth above, the decision of the examiner to reject claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 under 35 U.S.C. § 112, first paragraph, is reversed.

#### **The obviousness rejections**

We will not sustain any of the rejections of claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 under 35 U.S.C. § 103.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A case of obviousness is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply

deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

With this as background, we have reviewed all the rejections under 35 U.S.C. § 103 made by the examiner of the claims on appeal (answer, pp. 14-28) and the appellants' argument against these rejections (brief, pp. 22-43, and reply brief, pp. 6-11). All of the § 103 rejections are based on the examiner's determination that one difference between Patterson (the primary reference in all the rejections) and the claims under appeal is the limitation that all the coolant supplied to the coolant ascending path in the water rod is introduced into the coolant descending path of the water rod. Patterson provides a plurality of intermediate exit holes 24 in his water rod 18. Accordingly, all of the coolant supplied to the coolant ascending path (shown by arrow 42 in Figure 4 of Patterson) in Patterson's water rod 18 is not introduced into the coolant descending path of his water rod 18 due to the fact that part of the water in the coolant ascending path exits the coolant ascending path via the plurality of

intermediate exit holes 24 in the water rod 18 prior to reaching the descending path.

With regard to this difference, the examiner determined (answer, p. 16) that it would have been obvious to omit Patterson's plurality of intermediate exit holes 24 in his water rod 18 because of the known alternative water rod 32 taught in Figure 10 of Kumpf. We do not agree.

The Federal Circuit states that "[the] mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." In re Fritch, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), citing In re Gordon, 773 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). In our view, the only suggestion for modifying Patterson in the manner proposed by the examiner to meet the above-noted limitation stems from hindsight knowledge derived from the appellants' own disclosure. The use of such hindsight knowledge to support an obviousness rejection under

35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Thus, we find ourselves in agreement with the appellants that the examiner has failed to establish a case of obviousness of the claimed subject matter for the reasons set forth by the appellants.

For the reasons set forth above, the decision of the examiner to reject claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 under 35 U.S.C. § 103 is reversed.

#### CONCLUSION

To summarize, the decision of the examiner to reject claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 under 35 U.S.C. § 112, second paragraph, is reversed; the decision of the examiner to reject claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to 52 under 35 U.S.C. § 112, first paragraph, is reversed; and the decision of the examiner to



reject claims 4, 6, 7, 13, 14, 26, 28 to 31, 34, 35 and 41 to  
52 under 35 U.S.C.

§ 103 is reversed.

REVERSED

CHARLES E. FRANKFORT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JOHN P. McQUADE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
JEFFREY V. NASE	)	
Administrative Patent Judge	)	

Appeal No. 1996-3167  
Application No. 07/974,834

Page 18

ANTONELLI TERRY STOUT AND KRAUS  
SUITE 1800  
1300 NORTH SEVENTEENTH STREET  
ARLINGTON, VA 22209

APPEAL NO. 1996-3167 - JUDGE NASE  
APPLICATION NO. 07/974,834

APJ NASE

APJ FRANKFORT

APJ McQUADE

DECISION: **REVERSED**

Prepared By: Gloria

Henderson

**DRAFT TYPED:** 19 Jan 00

**FINAL TYPED:**

**HEARD:** January 13, 2000